

AMENDMENTS TO THE CLAIMS

Please cancel claim 18.

Please amend the claims as follows:

1. (Currently amended) A grant generator for ~~selecting a switching request to be granted~~ switching service section, comprising:

a structure comprising a plurality of binary round robin tree (BRRT) cells, each BRRT cell having one or more request inputs and a request output, a grant input and one or more grant signal outputs, and a control signal input, each of the BRRT cells providing a request output to another BRRT cell or to a final request output for the structure; and

a preference pointer coupled to ~~[[said]]~~ the plurality of BRRT cells wherein ~~[[said]] the preference pointer provides a control signal to said~~ is to provide one or more control signals to each of the BRRT cells at the control signal input of each BRRT cell.
2. (Currently amended) The grant generator as recited in Claim 1, wherein ~~[[said]]~~ the grant generator is a functionality within a crossbar switch structure.
3. (Currently amended) The grant generator as recited in Claim 1, wherein ~~[[said]]~~ the grant generator comprises a quadrature based grant generator.
4. (Currently amended) The grant generator as recited in Claim 3, wherein ~~[[said]]~~ the quadrature based grant generator services four quadrants.
5. (Currently amended) The grant generator as recited in Claim 4, wherein each of ~~[[said]]~~ the four quadrants corresponds to a plurality of ports, wherein each ~~[[said]]~~

quadrant comprises a plane, and wherein ~~[[said]]~~ the structure is expressed within each ~~[[said]]~~ plane.

6. (Currently amended) The grant generator as recited in Claim 4, wherein ~~[[said]]~~ the plurality of ports comprises eight ports and wherein a total of 32 ports is serviced.

7. (Currently amended) The grant generator as recited in Claim 1, wherein each of the ~~[[said]]~~ plurality of BRRT cells ~~comprise~~ comprises a type selected from the group consisting of ~~[[basic]]~~ 'basic' BRRT cells, 'enable' BRRT cells further including an enabling input, and 'single grant' BRRT cells having a single request input and a single grant output.

8. (Currently amended) The grant generator as recited in Claim 7, wherein ~~[[said]]~~ the structure ~~further~~ comprises an arrangement of ~~[[said]]~~ the BRRT cells, and wherein ~~[[said]]~~ the arrangement comprises a cascade of BRRT cells.

9. (Currently amended) The grant generator as recited in Claim 8, wherein ~~[[said]]~~ the cascade comprises:

a first stage of BRRT cells, wherein ~~[[said]]~~ the first stage comprises a first even positive whole number of BRRT cells;

a second stage of BRRT cells coupled to ~~[[said]]~~ the first stage, wherein ~~[[said]]~~ the second stage comprises a second even positive whole number of BRRT cells; and

a third stage ~~BRRT cell~~ of one or more BRRT cells coupled to ~~[[said]]~~ the second stage.

10. (Currently amended) The grant generator as recited in Claim 9, wherein a first half of the BRRT cells of [[said]] the first stage cascades into a first half of the BRRT cells of [[said]] the second stage.

11. (Currently amended) The grant generator as recited in ~~Claim 9~~ Claim 10, wherein a second half of the BRRT cells of [[said]] the first stage cascades into a second half of the BRRT cells of [[said]] the second stage.

12. (Currently amended) The grant generator as recited in Claim 9, wherein the BRRT cells of [[said]] the second stage ~~eascades~~ cascade into the one or more BRRT cells of [[said]] the third stage ~~BRRT cell~~.

13. (Currently amended) The grant generator as recited in Claim 9, wherein [[said]] the cascade further comprises a fourth stage ~~BRRT cell~~ of one or more BRRT cells coupled to the third stage.

14. (Currently amended) The grant generator as recited in Claim 13, wherein [[said]] the cascade further comprises a fifth stage ~~BRRT cell~~ of one or more BRRT cells coupled to the fourth stage.

15. (Currently amended) The grant generator as recited in Claim 14, wherein the [[said]] BRRT cells of [[said]] the first stage comprise 'enable' BRRT cells.

16. (Currently amended) The grant generator as recited in Claim 14, wherein the [[said]] BRRT cells of [[said]] the second stage and [[said]] the third stage comprise [[basic]] 'basic' BRRT cells.

17. (Currently amended) The grant generator as recited in Claim 14, wherein the [[said]] BRRT cells of [[said]] the fourth stage and [[said]] the fifth stage comprise 'single grant' BRRT cells.

18. (Cancelled)

19. (Withdrawn) A method for quadrature based round robin grant generation, comprising:

receiving a request;
selecting a quadrant;
servicing said request; and
generating a grant corresponding to said request.

20. (Withdrawn) The method as recited in Claim 19, further comprising determining that said quadrant is due for service, wherein said determining is performed after said receiving and prior to said selecting.

21. (Withdrawn) The method as recited in Claim 19, further comprising ascertaining that a count has been reached, wherein said ascertaining is performed after said determining and prior to said selecting.

22. (Withdrawn) The method as recited in Claim 19, further comprising determining that a multicast service request is pending, wherein said determining that a multicast service request is pending is performed prior to said selecting and wherein said selecting is based upon a priority assigned to said multicast service request.

23. (Withdrawn) A binary round robin tree (BRRT) cell circuit comprising:
- an 'OR' gate for generating a signal 'Req[l, l+1]' from an input "Req[l, l]" and an input 'Req[l+1, l]'; and
- a plurality of 'AND' gates coupled to said 'OR' gate.
24. (Withdrawn) The BRRT circuit as recited in Claim 23 wherein said 'AND' gates generate a grant 'Gnt[l, l]' and a grant 'Gnt[l+1, l]' from a plurality of inputs, wherein said inputs are selected from the group consisting essentially of a control signal and said inputs 'Req[l, l]' and 'Req[l+1, l]'.